## 346

SIDA 15(2): 1992

# for their assistance during this study.—Edward McWilliams, Department of Horticultural Sciences, TAMU, College Station, TX 77843, U.S.A.

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ABOUT LUPINUS CUMICOLA (FABACEAE)—Isely (1990) combines L. cumicola Small with L. diffusus Nutt. stating that the former "represents peninsular Florida forms that have strongly ascending, foliose stems and sometimes broader leaves than the usual type." We point out that there are at least six consistent significant differences besides height which we present below.

# Lupinus cumicola vs. Lupinus diffusus

(1) Legumes (pods) mostly 27 – 42 mm long by 8.1 – 8.5 mm across\* and broadly linear vs. mostly 35 – 47 mm by 6.3 – 7.6 mm and oblong.
(2) No partitions between mature seeds vs. thin partitions between seeds.
(3) Depressions on legume between seeds obscured by hairs vs. depressions evident.

(4) Hairs on pods to ca. 3 mm long, rusty-tannish, and loose woolly vs. hairs to ca. 2 mm long, light brown, silky, and mostly somewhat appressed and parallel with each other.

(5) Living plants silvery and to 1.9 m tall including inflorescences vs. grayishgreen and to 0.7 m tall including inflorescences.

(6) Principal stem of seedlings continuing erect growth for as much as 28 cm before developing ascending branches vs. only a short vertical growth before developing prominent prostrate branches that ascend only at ends. \*Note: Pods appear even larger as hairs are more spreading than in *Lupinus diffusus*.

Plants of both species occur near Winterhaven, Polk, Co., Florida and consistently

exhibit these differences. We maintain that such differences warrant *Lupinus* cumicola being maintained at species level as is done by Small (1933). Our conclusions are based mostly on studies of 42 herbarium specimens (GA) of *L. diffusus* from Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina, 10 specimens (GA) of *L. cumicola* from Florida and abundant field observations in Florida, Georgia, and South Carolina, including ca. 20 popula-

SIDA 15(2): 346. 1992

## Notes

tions of the latter species.—Wilbur H. Duncan, Department of Botany, University of Georgia, Athens, GA 30602, U.S.A. and Robert B. McCartney, Woodlanders, 1129 Colleton Ave., Aiken, SC 29801, U.S.A.

347

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MANIHOT SUBSPICATA (EUPHORBIACEAE) NEW TO TEXAS— Shrublands on caliche bluffs and slopes in Jim Wells, Live Oak, and San Patricio Counties, Texas, are known to harbor populations of several plant species which, although variously distributed in northeastern Mexico, are otherwise absent from Texas. Species represented in Texas by such disjunct populations include *Caesalpinia phyllanthoides* Standl., *Cassia greggii* Gray, and *Boerhavia mathisiana* F. B. Jones.

A recent collection indicates that Manihot subspicata Rogers & Appan might be added to this list. This shrub, known from the Mexican states of Coahuila, Nuevo Leon, and Tamaulipas (Rogers & Appan 1973), was collected in Jim Wells County at the Live Oak County line on the W side of Lake Corpus Christi. Two shrubs were seen at this site and a third shrub was encountered but not vouchered less than 1 km to the N in Live Oak County. Both sites are on dissected slopes where caliche of the Goliad Formation (Miocene) is exposed. Soils at the Jim Wells County site are mapped as shallow, well drained, droughty, moderately alkaline, grayish brown gravelly loam Petrocalcic Calciustolls of the Olmos association over undulating terrain (Minzenmayer 1979). No published soil survey is available for Live Oak County. Vegetation at both sites is a relatively undisturbed mixed evergreen/deciduous shrubland dominated by Leucophyllum frutescens (Berl.) I.M. Johnst., Acacia berlandieri Benth., A. rigidula Benth., Calliandra conferta Benth. ex Gray, and Cassia greggii Gray. Manihot subspicata was not reported from Texas in Correll & Johnston (1970) or its update (Johnston 1990), or from the Texas Coastal Bend area in Jones (1977) or its update (Hill 1982). The question of the nativity of this taxon in Texas was immediately raised but will never be answered. While it is our opinion that this population is native to this interesting area, the simple fact that this conspicuous shrub has not been previously reported from a well botanized region of Texas suggests that Manihot subspicata may be a recent introduction. Flowering specimens of this taxon will key in Correll & Johnston to the genus

SIDA 15(2): 347. 1992